# MacOS Starter Code Setup

CSE 167 WI21

This document demonstrates the installation and configuration procedures for the HW0 starter code on MacOS using the XCode IDE. Other IDEs / text editors are welcomed and similar procedures can be followed.

Step 1: Download these two files (`Makefile` and `libinstall.sh`) here, and move them to the same folder with other files of the code stub you've downloaded, replace them if necessary.

Step 2: Right click on the unzipped folder and select "New Terminal at Folder / New Terminal Tab at Folder":
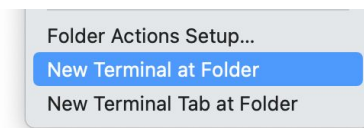
Step 3: With the terminal opened, execute "libinstall.sh" (`./libinstall.sh`) to install the GLEW, GLU, and GLUT libraries.

Step 4: Install XCode from AppStore, then type & open XCode from Spotlight (⌘ Space):
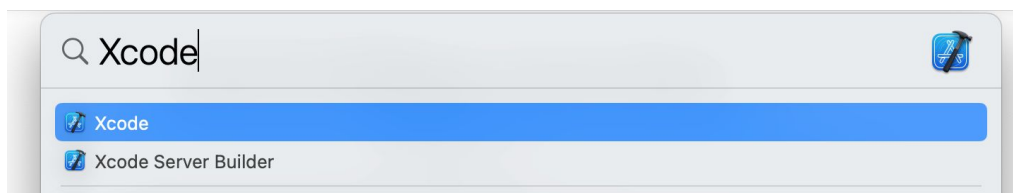
Step 5: Choose "Create a new Xcode project" from the welcome screen:

Welcome to Xcode
Version 12.3 (12C33)

Create a new Xcode project
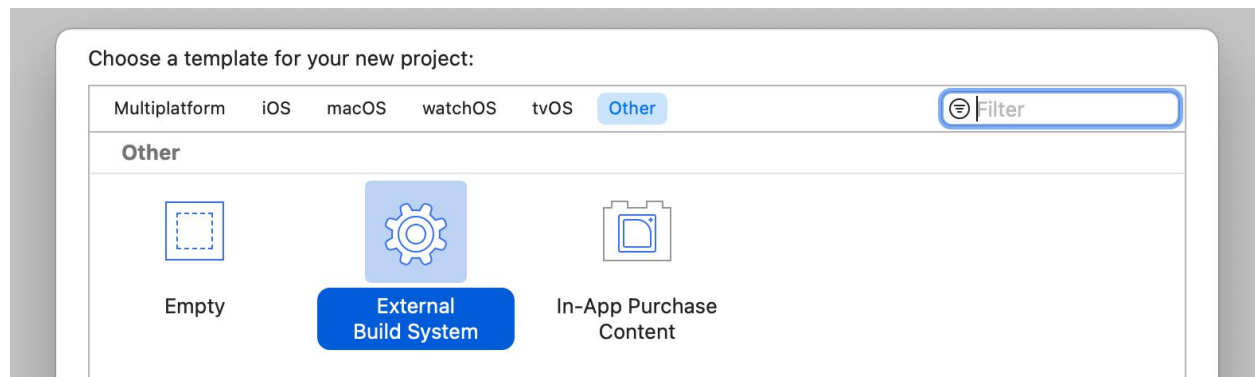Create an app for iPhone, iPad, Mac, Apple Watch, or Apple TV.

Clone an existing project
Start working on something from a Git repository.

Open a project or file

Step 6: In "Other" tab, choose "External Build System" (since we will be using make), then click "next":

Choose a template for your new project:

Multiplatform   iOS   macOS   watchOS   tvOS   Other   Filter

Other

Empty   External   In-App Purchase
               Build System   Content

Step 7: Give the project a name of your choice, then click "next":

Step 8: Choose a folder to place your project. We recommend you to organize all your project folders in a course folder, e.g. "CSE 167/Assignment 0/". In this case, you can simply choose the "CSE 167" folder to "create" your project.

Step 9: Copy & paste all starter code files to the Assignment folder you've just created (e.g. "CSE 167/Assignment 0/" if you've followed the naming convention in Step 8). Then right-click the "Assignment 0" tab in the navigator area:
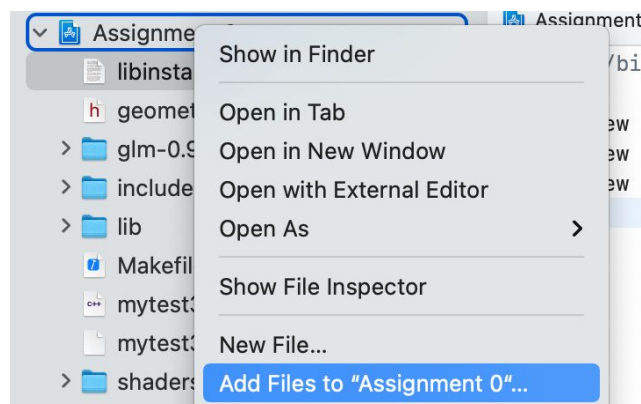
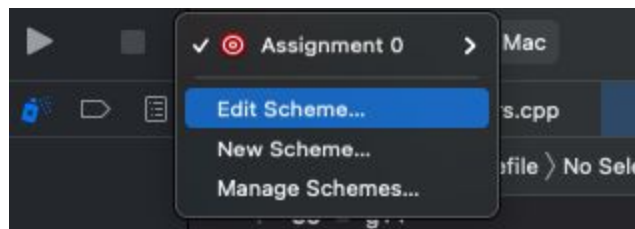Step 10: Select all the files you've copied and use these settings upon the adding process:

Step 11: Click the play button to build. You should receive a "Build Successfully" toast.

Now let's try to add the executable to XCode to leverage its IDE features.

Step 12: At the toolbar, right click on the "🎯 Assignment 0" target, click on "Edit Scheme":

Step 13: Choose "Other…" from the "Executable" dropdown, then select the executable you've just built. For "Build Configuration", choose "Release" to speed things up.

Step 14: Under "Options" tab, tick "Use custom working directory", then choose the directory where all our starter files are stored:
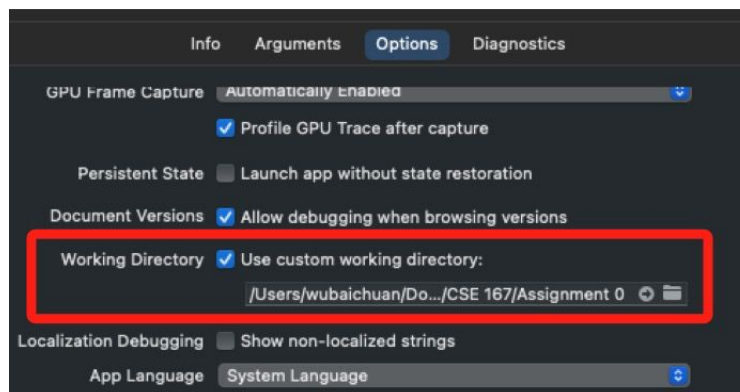
Step 15: Close the tab, then build again, now you should see the Utah Teapot!

Simple Demo with Shaders